

PRESS RELEASE
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UK100 Local Energy Insight Report - [download](#).

Business and local leaders call for Net Zero Development Bank to unlock £100bn including £40bn to meet energy efficiency manifesto promise

- **Network of over 100 Mayors and local government leaders along with Siemens UK call on Chancellor and PM to invest £5bn into Local Energy Recovery as part of stimulus package**
- **£5bn of development funding would unlock £100bn worth of schemes; increasing the current pipeline of £0.85bn by more than 100 times**
- **£40bn for energy efficiency to make good on manifesto pledge on retrofitting leaky homes**
- **Call for a Net Zero Development Bank in order to finance schemes and avoid duplication (21 different grants through BEIS); alongside rebalanced system from large power stations to regional energy projects**

LONDON > A coalition of local leaders and businesses have joined forces to call on the Chancellor to pledge £5bn toward local energy projects¹ in the upcoming stimulus package. This would net a return of £100bn to support the British economy, including **£40bn for energy efficiency**. The package could create over 300,000 jobs, helping to level up all parts of the country and build back better. The plans could also cut energy bills and save the NHS money.

[The call for investment](#) in energy efficiency follows the Prime Minister's speech today and the urgent need for a national programme of home insulation, which was a £9.2bn Conservative manifesto pledge.² Only £80m has been announced³.

Commenting on the PM's speech and launching the UK100 Local Energy Insight Report, Polly Billington, Director of UK100 said:

"The Prime Minister needs to make good on his manifesto promise to invest in energy efficiency in UK homes, which are some of the leakiest in Europe. £5bn could unlock £100bn. That would help consumers save on their fuel bills and the environment. A stimulus package that focuses on local energy will help rescue the UK economy and deliver on the Prime Minister's ambitions of levelling up all parts of the country, and meeting the Net Zero target."

Retrofitting energy efficiency measures and clean heat technology will be a critical part of Net Zero, as homes account for 18% of emissions⁴, primarily from natural gas use for heating and cooking¹. According to the UK Green Building Council, to achieve net zero carbon by 2050, we will need to improve almost all of the UK's 29 million homes, meaning we need to **retrofit nearly 2 homes every minute between now and 2050**.

Carl Ennis, the UK CEO of Siemens said: "There is an urgent need to scale up local, sustainable, energy if the UK is to have any chance of meeting Net Zero by 2050. This requires a collective national effort with government,

¹ Summary Report: <https://www.uk100.org/wp-content/uploads/2020/06/Local-Energy-Insight-Summary-Report-July-2020.pdf> £5bn investment for £100bn return: This is based on the typical development cost range of 10-15% of overall capital costs for large scale district heating projects down to 2-5% for more straightforward energy efficiency projects.

² <https://www.ft.com/content/d4035d01-e33e-473a-81ea-93125a69942e>

³ <https://www.businessgreen.com/news/4017070/government-unveils-gbp80m-energy-efficiency-innovation-push-fears-grow-promised-building-upgrade-plan>

⁴ 2018 figures - 1. *UK Greenhouse Gas Emissions*, Provisional Figures, BEIS, 2019

business and the public all playing our part. Local energy should be at the heart of the National Infrastructure Strategy creating a more consistent policy landscape that will give investors the confidence to invest earlier.”

UK100, a network of over 100 mayors and local leaders from across the country have partnered with smart infrastructure leader, **Siemens UK** on [a new study](#) which argues that a more “balanced energy system” is required with the right mix of local decentralised energy systems alongside large scale generation. Members of the public and energy consumers will become generators themselves.⁵

Local energy projects include retrofitting homes, onshore solar and wind power, biomass, electric vehicle charging and smart grids all of which are critical to meeting the UK’s ‘Net Zero’ target by 2050.

The group is calling for the establishment of a **Net Zero Development Bank** which would bring together all government financing for the transition to Net Zero and kickstart local energy schemes which are at too early a stage to be attractive to private finance. The Bank would provide a single gateway to government support, replace lost funding from the EU within a more stable regulatory regime.⁶

[The report](#) is the outcome of an 18 month programme of 5 workshops held across England (Bristol, Cambridge, Leeds, Leicester and Manchester) and expert interviews sponsored by the **Department for Business, Energy and Industrial Strategy (BEIS) and Siemens** bringing together 327 experts from local authorities, business, academia, NGOs and local economic partnerships (LEPs) to discuss green financing. The report will be published in full later this Summer but a summary of the major recommendations and an interim draft report has been released ahead of a possible economic recovery package to be announced by the Chancellor, Rishi Sunak.

Tim Bowles, the Mayor of the West of England, said: “Decarbonising our energy network is the sort of grand challenge that is central to tackling the climate emergency and making sure we meet our national, regional and local net zero targets. In the post- Covid-19 recovery and renewal of our economy, there is a real opportunity to make substantial progress towards marking this goal a reality.

“In the West of England, I’m already making sure we seize this opportunity. From making sure our skills programmes are providing the sort of skills the sector will need for these jobs of the future, to having a programme which supports local energy schemes to create a low carbon future for the region.”

Sally Longford, Deputy Leader of Nottingham City Council and Portfolio Holder for Energy and Environment, said: “A green recovery programme built around the transformation of our energy systems is not only a good thing to do, but the right thing too. The evidence shows that this type of investment pays dividends compared to traditional approaches, and helps us urgently move forward our climate emergency response. We have seen in Nottingham already how local energy projects can bring a range of real benefits to people and businesses, not just the environment. Councils are ready to lead and help deliver stimulus programmes to help us renew our local economies in a transformative way to overcome the effects of COVID-19 in the most positive way.”

Leader of Warrington Borough Council, Cllr Russ Bowden, said: “As a council, we’re committed to becoming energy self-sufficient by 2030. We approved our green energy strategy in 2019 which commits to addressing fuel poverty, creating jobs, stimulating economic growth and securing energy supply whilst achieving carbon neutrality. But together we need to think bigger: if we’re to meet the challenge of achieving Net Zero nationally by 2050, we need to scale up local energy schemes and put more power to our regions. We want our work locally to support and

⁵ The reports says, “Our switch to renewable generation, which relies heavily on smaller but widely spread solar and wind power installations, requires us to develop a balanced energy system which combines a mix of large scale power generation, such as off-shore wind, with local decentralised energy systems...These involve energy consumers becoming generators themselves. To be cost effective these local energy systems will use smart technology and storage solutions to balance demand and supply.

⁶ This bank would have much more of a development role than the UK Green Investment Bank (GIB). The GIB’s mandate was focussed on crowding capital into green projects which were already being developed by the market

inspire others, and I firmly believe that by investing in local energy recovery and using the expertise of our councils, we can realise Net Zero.”

It analyses the progress of the 5 regional energy hubs, set up by the government in 2018, which currently have a pipeline of 183 projects valued at £850 million. However, 90% of these projects were still at an early stage of development and most of the projects are also relatively small scale, at below £5 million.

Analysis conducted by Siemens and UK100 shows that the potential pipeline could be increased by more than 100 times from £0.85bn to £100bn.⁷ It includes £40bn for energy saving and efficiency in homes and businesses; £10bn for renewables such as solar, wind and biomass; £30bn for low carbon heating such as district heating networks; £10bn for smart energy systems; and £10bn for low emissions transport such as electric and hydrogen vehicles.

A Net Zero Development Bank would avoid duplication and establish common rules for financing schemes ensuring value for money for the taxpayer, and efficiency of scale for businesses. Currently there are **21 different grants available for local energy projects** just via the Department for Business, Energy and Industrial Strategy (BEIS)⁸, with more via other departments and agencies such as the Ministry of Housing, Communities and Local Government (MH CLG) and Ofgem. Some of the SMEs interviewed have described the **‘valley of death’ challenge** they face as they seek to scale up successful concepts.

At the same time, businesses such as Siemens are working with a wide range of local authorities on one-off clean energy schemes which each require bespoke contracts and financing, wasting precious resources. For instance, Siemens have supported **West Sussex** County Council to develop their first solar farm on landfill site which is not ready for development, powering 2,400 homes - but such an approach could have a far higher and more efficient impact on cleaning up our energy if done through a consortium of local authorities with landfill development.

New Jobs

316,387 jobs could be created in the local energy sector over the coming decade with investment in decarbonisation including 223,387 in energy efficiency (such as insulating homes and businesses), up to 81,000 in heat networks and 12,000 in smart meters, according to research compiled by IPPR⁹. Financing and procurement policies should ensure that while economies of scale are met, there are still real opportunities for small and medium-sized enterprises (SMEs) in the transition to net zero and that large conglomerates are not favoured at the expense of their smaller competitors.

Why a Local Energy Recovery?

The switch to low carbon generation, which relies heavily on smaller but widely spread solar and wind power installations, requires us to develop a balanced energy system which combines a mix of large scale power generation, such as off-shore wind, with local **decentralised energy systems**.

These involve energy consumers becoming generators themselves. To be cost effective these local energy systems will use smart technology and storage solutions to balance demand and supply. They will also need to keep generation close to demand to minimise energy transmission loss. But they need to be linked to ensure security of supply when local demand and supply become unbalanced.

Some areas of the country have their own particular energy sources which can be used to support their local energy systems, such as warm water in old mine shafts, or more sun or wind to power low carbon generation. In other parts

⁷ The £100bn figure is extrapolated from 2 energy strategies that Siemens has carried out for two regions in England, the TriLEP area which covers much of South East England outside London, and the Humber region.

⁸ See p32, UK100: Accelerating the Rate of Investment in Local Energy Projects

⁹ Source: p42 of *Faster, Further, Fairer - Putting People At The Heart Of Tackling The Climate And Nature Emergency*, IPPR, 2020

of the country, such as **Lincolnshire**, the waste disposal strategy of its agricultural economy involves biomass energy such as the 38MW **Sleaford Renewable Energy Plant**.

Many local authorities sit on large asset portfolios of public buildings and land, which could be invested in energy projects. At the same time, with their increasing reliance on business rates for funding, councils are keen to foster local economic growth while recognising they may need additional advice from the private sector. Councils are under pressure from concerned citizens - 90% of whom live in an area where the council has declared a Climate Emergency.

Nottingham

Nottingham wants to become the first carbon neutral city in England, by 2028. It has a wide range of demonstrator projects in partnership with universities and businesses. Nottingham City Council has invested in over 50 commercial solar PV schemes, owns and operates a waste incinerator that was built in the 1970s and owns 26,000 social housing units. It is involved in a number of innovative energy efficiency retrofit and energy storage programmes across this housing stock. In the Trent Basin regeneration area its joint venture development partner, Blueprint, is working with SmartKlub to develop a subsidy free commercial model for community energy.

Warrington

Warrington Borough Council aims to become energy self-sufficient by 2030. It has taken an active approach to the local energy market with its first investment fitting 2,000 council owned homes with solar panels supplying electricity to tenants. Following this it has invested in two sizable commercial solar PV projects, 25MW and 35MW in capacity, in York and Hull, at a cost of about £60 million using a mixture of private and public finance.

The electricity generated will power all council buildings, securing savings in energy costs, whilst the remainder of will be sold to the grid or other public sector organisations. The council has offered to fund solar panels on private homes or businesses, and retain income from them. A percentage of any profits from its green energy investments will go toward community energy and reducing fuel poverty.

Social Benefits

There will be many social and health benefits from moving to a zero carbon economy, including lower heating bills and fewer hospital admissions. One pilot project in **Portsmouth** which deployed Passivhaus-standard energy efficiency upgrades to 111 flats reduced energy bills by an average of £700 per year¹, equivalent to over half the annual cost of a standard energy bill.² Reducing the chronic health effects from fuel poverty driven by high energy bills and inefficient homes has the potential to save the NHS between £1.4 billion and £2 billion per year in England alone.³

Recommendations: Barriers to Investment

The main recommendations made to policymakers and business in the UK100 report to unlock investment include:

- Participants in the local energy market are confused and frustrated by inconsistent policy and regulation
- £100 billion of capital investment requires initial development funding of the order of £5 billion.
- The private sector can provide much of the development capital needed, but only if there is sufficient market clarity
- Local authorities lack the development capacity to support local energy investment
- Government support, provided in a coherent and consistent manner, could help to provide the necessary market certainty and stability
- UK 100 believes that government support for local energy Net Zero investment would be delivered most effectively through a new Net Zero Development Bank, working in partnership with UK local authorities, to mobilise private investment by:
 - becoming a centre of excellence for developing, procuring and delivering Net Zero project investment;

- scaling up investment opportunities to make them more attractive to institutional investors; and
- engaging with regulators and the central government to ensure the necessary support for market development.

What is the scale of the local energy opportunity?

Siemens estimates that more than £100 billion of investment in local clean energy schemes could be generated through local authorities, private capital and government investment working together on a wide range of projects across the country.

Siemens bases this on the energy strategies that it has carried out for two regions in England, the TriLEP area which covers much of South East England outside London, and the Humber region.

The table below sets out UK100's estimates of how this £100 billion investment potential might be distributed across each of the local energy sectors which we have identified. The true scale of the investment required is likely to be much greater than this, particularly if our ambition is to achieve Net Zero well before 2050.

Themes	Technologies	Potential investment by 2030
Energy saving & efficiency	<ul style="list-style-type: none"> • Energy efficiency in homes • Non domestic energy efficiency 	>£40 bn
Renewable Generation	<ul style="list-style-type: none"> • Solar & wind generation • Biomass energy 	>£10 bn
Low carbon heating	<ul style="list-style-type: none"> • District heat network roll-out • Heat pumps • Off-gas grid homes • Use of hydrogen 	>£30 bn
Smart energy systems	<ul style="list-style-type: none"> • Smart grids • Battery storage • Distribution upgrades • ESCOs to manage dynamic new energy market 	>£10 bn
Transport revolution	<ul style="list-style-type: none"> • EV charging • Hydrogen fuelling • Shift to electric and hydrogen powered vehicles 	>£10 bn
Total		>£100 bn

Source: UK100 estimates

At a city level, Bristol estimates that it needs to invest £5-7 billion in local energy over the next 10 years to achieve net zero by 2030. Edinburgh has assessed cost-effective carbon reduction investments in housing, public and commercial buildings, transport, industry and waste sectors up to 2030 at almost £4 billion.

The consensus among our interviewees and UK100 members is that the scale of the investment required cannot and should not be met by the public purse. Instead the investment opportunity for private finance needs to be created by shaping markets.

Ends

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Editor's Notes

About UK100

UK100 is a network of highly ambitious local government leaders, who have pledged to secure the future for their communities by shifting to 100% clean energy by 2050. This is not just good for the planet but for the people and communities they serve, be they in villages, towns or cities. Local leaders are working together to create flourishing communities, seizing the opportunities of technology to create jobs and establishing a nationwide project of renewal, focussed on local needs and ambitions.

UK100 is the only network for UK local authorities, urban, suburban and rural, focused on climate and clean energy policy. We connect local leaders to each other, to business and to national government, enabling them to showcase their achievements, learn from each other and speak collectively to accelerate the transition to clean energy.

We work closely with elected representatives, policy experts and grassroots campaigners to make the clean energy transition a reality. This involves developing solutions to challenges faced by each and all of our local leaders, whatever their geography, history or makeup, so as to influence national government and building public support for clean energy solutions. www.uk100.org

About Siemens

Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. SI creates environments that care. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland, and has around 71,000 employees worldwide. For more information, visit siemens.co.uk/smartinfrastructure